

CLAIMS

What is claimed is:

1. A method for receiving promotional messages comprising:
capturing an image of a message carrier on a display screen;
processing the image to acquire a message code from the message carrier;
transmitting the message code to a remote system; and
receiving a promotional message based on the transmitted message code.
2. The method of claim 1, wherein processing the image comprises:
reading intensity values for pixels forming the image;
locating the message carrier by analyzing the intensity values;
locating the message code within the message carrier; and
reading intensity values for pixels forming the message code to acquire the message code.
3. The method of claim 1, wherein processing the image comprises:
transmitting the image to a second remote system;
reading intensity values for pixels forming the image at the second remote system;
locating the message carrier by analyzing the intensity values at the second remote system;
locating the message code within the message carrier at the second remote system;
reading intensity values for pixels forming the message code to acquire the message code at the second remote system; and
receiving the message code from the second remote system.
4. The method of claim 2, wherein the intensity values are read by scanning substantially vertical columns of pixels forming the image.
5. The method of claim 4, wherein locating the message carrier comprises analyzing the scanned vertical columns of pixels to identify one or more transitions between dark-colored regions and light-colored regions.

6. The method of claim 4, wherein locating the message carrier comprises analyzing the scanned vertical columns of pixels to identify a dark-colored border.
7. The method of claim 1, wherein the remote system comprises a remote server having a database containing promotional messages.
8. The method of claim 1, wherein the promotional message comprises an electronic coupon that can be used at a point-of-sale terminal.
9. The method of claim 1, wherein the message code is transmitted to the remote system over a wireless network.
10. The method of claim 9, wherein the wireless network comprises a GSM network, a CDMA network, or a TDMA network.
11. The method of claim 1, wherein the promotional message is received over a wireless network.
12. The method of claim 11, wherein the wireless network comprises a GSM network, a CDMA network, or a TDMA network.
13. The method of claim 1, wherein the message carrier comprises:
an identifying border; and
the message code.
14. The method of claim 13, further comprising one or more transitions between dark-colored regions and light-colored regions.
15. The method of claim 13, wherein the message code is formed using a plurality of blocks.
16. The method of claim 13, wherein the message code comprises text codes, graphical symbols, or an alphanumeric string.

17. The method of claim 15, wherein the message code is formed using a checkerboard-like design.
18. The method of claim 15, wherein the message code is formed using a vertical strip design.
19. The method of claim 13, wherein the identifying border is over-sized to increase the probability that a column of pixels will pass through the entire border.
20. A method for pushing promotional messages to users comprising:
displaying a message carrier on a display screen;
receiving a message code from a user, wherein the message code was acquired from the message carrier; and
pushing a promotional message to the user based on the received message code.
21. The method of claim 20, wherein the message carrier comprises:
an identifying border; and
the message code.
22. The method of claim 21, wherein the message carrier further comprises one or more transitions between dark-colored regions and light-colored regions.
23. The method of claim 21, wherein the message code is formed using a plurality of blocks.
24. The method of claim 21, wherein the message code is formed using a plurality of text codes.
25. The method of claim 21, wherein the message code is formed using a plurality of graphical symbols.
26. The method of claim 20, wherein the message code is received over a wireless network.

27. The method of claim 26, wherein the wireless network comprises a GSM network, a CDMA network, or a TDMA network.

28. The method of claim 20, wherein the promotional message is pushed over a wireless network.

29. The method of claim 28, wherein the wireless network comprises a GSM network, a CDMA network, or a TDMA network.

30. An apparatus for receiving promotional messages comprising:
a display;
a digital image capturing device;
a wireless communication system;
a processor;
a memory; and
a client application, physically stored in the memory, for receiving promotional messages, comprising instructions operable to cause the processor and the wireless communication system to:
capture an image of a message carrier using the digital image capturing device;
process the image to acquire a message code from the message carrier;
transmit the message code to a remote system using the wireless communication system; and
receive a promotional message using the wireless communication system based on the transmitted message code.

31. The apparatus of claim 30, wherein the instructions to process the image further comprise instructions operable to cause the processor to:
read intensity values for pixels forming the image;
locate the message carrier by analyzing the intensity values;
locate the message code within the message carrier; and
read intensity values for pixels forming the message code to acquire the message code.

32. The apparatus of claim 31, wherein the intensity values are read by scanning substantially vertical columns of pixels forming the image.

33. The apparatus of claim 32, wherein the instructions to locate the message carrier comprise instructions operable to cause the processor and the wireless communication system to analyze the scanned vertical columns of pixels to identify one or more transitions between dark-colored regions and light-colored regions.

34. The apparatus of claim 32, wherein the instructions to locate the message carrier comprise instructions operable to cause the processor and the wireless communication system to analyze the scanned vertical columns of pixels to identify a dark-colored border.

35. The apparatus of claim 30, wherein the remote system comprises a remote server having a database containing promotional messages.

36. The apparatus of claim 30, wherein the message code is transmitted to the remote system over a wireless network.

37. The apparatus of claim 36, wherein the wireless network comprises a GSM network, a CDMA network, or a TDMA network.

38. The apparatus of claim 30, wherein the promotional message is received over a wireless network.

39. The apparatus of claim 38, wherein the wireless network comprises a GSM network, a CDMA network, or a TDMA network.

40. The apparatus of claim 30, wherein the message carrier comprises:
an identifying border; and
the message code.

41. The apparatus of claim 40, wherein the message code is formed using a plurality of blocks.

42. The apparatus of claim 40, wherein the message code comprises text codes, graphical symbols, or an alphanumeric string.

43. The apparatus of claim 41, wherein the message code is formed using a checkerboard-like design.

44. The apparatus of claim 41, wherein the message code is formed using a vertical strip design.

45. The apparatus of claim 40, wherein the identifying border is over-sized to increase the probability that a column of pixels will pass through the entire border.

46. The apparatus of claim 40, wherein the identifying border comprises a dark-colored border around at least a portion of the message code.

47. The apparatus of claim 40, wherein the identifying border comprises one or more transitions between dark-colored regions and light-colored regions.

48. An apparatus for receiving promotional messages comprising:
a display;
a digital image capturing device;
a wireless communication system;
a processor;
a memory; and
a client application, physically stored in the memory, for receiving promotional messages, comprising instructions operable to cause the processor and the wireless communication system to:
capture an image of a message carrier using the digital image capturing device;
transmit the image to an image processing system using the wireless communication system;
receive a message code from the image processing system based on the transmitted image;
transmit the message code to a promotional message system using the wireless

communication system; and

receive a promotional message from the promotional message system based on the transmitted message code.

49. The apparatus of claim 48, wherein the image processing system is configured to:
receive the image;
read intensity values for pixels forming the image;
locate the message carrier by analyzing the intensity values;
locate the message code within the message carrier;
read intensity values for pixels forming the message code to acquire the message code;
and
transmit the message code.

50. An apparatus for receiving promotional messages comprising:
a display;
a digital image capturing device;
a wireless communication system;
a processor;
a memory; and
a client application, physically stored in the memory, for receiving promotional messages, comprising instructions operable to cause the processor and the wireless communication system to:
capture an image of a message carrier using the digital image capturing device;
transmit the image to a remote system using the wireless communication system; and
receive a promotional message from the remote system based on the transmitted image.

51. The apparatus of claim 50, wherein the remote system is configured to:
receive the image;
read intensity values for pixels forming the image;
locate the message carrier by analyzing the intensity values;

locate the message code within the message carrier;
read intensity values for pixels forming the message code to acquire the message code;
and
transmit a promotional message based on the message code.

52. A computer program product, physically stored on a machine-readable medium, for receiving promotional messages, comprising instructions operable to cause a programmable processor to:

capture an image of a message carrier using the digital image capturing device;
process the image to acquire a message code from the message carrier;
transmit the message code to a remote system using the wireless communication system; and
receive a promotional message using the wireless communication system based on the transmitted message code.

53. The computer program product of claim 52, wherein the instructions to process the image further comprise instructions operable to cause a programmable processor to:

read intensity values for pixels forming the image;
locate the message carrier by analyzing the intensity values;
locate the message code within the message carrier; and
read intensity values for pixels forming the message code to acquire the message code.

54. A data processing system comprising:

means for capturing an image of a message carrier on a display screen;
means for processing the image to acquire a message code from the message carrier;
means for transmitting the message code to a remote system; and
means for receiving a promotional message based on the transmitted message code.

55. The data processing system of claim 54, wherein the means for processing the image further comprise:

means for reading intensity values for pixels forming the image;
means for locating the message carrier by analyzing the intensity values;
means for locating the message code within the message carrier; and

means for reading intensity values for pixels forming the message code to acquire the message code.